## **REMARKS**

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Reconsideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested.

### Claim Status

Claims 1, 2, 5-18, and 21 are pending in this application, of which claims 1, 18, and 21 are independent in form. Claims 1, 2, 5-18, and 21 are rejected. Independent claims 1, 18, and 21 are amended herein to require an optical unit that converts light having a wavelength between 5 and 20 nm from a light source, and consists of first and second mirrors. Support for these amendments is found throughout the specification and drawings, as originally filed. No new matter is added by theses amendments.

## Claim Rejections - 35 U.S.C. § 102

Claims 1, 2, 5, 6, 9, 10, 15, and 17 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Kim, U.S. Patent No. 5,695,277 ("Kim"). Applicant respectfully disagrees with the characterization of the claims and prior art in the stated rejection and respectfully traverses this rejection.

Amended independent claim 1 is directed to an illumination optical system comprising, *inter alia*, an optical unit that converts light having a wavelength between 5 and 20 nm from a light source into approximately parallel light, and consists of first and second mirrors. The illumination optical system according to claim 1 converts light from a light source section into approximately parallel light, reducing light amount, and effectively illuminates a surface of an object.

Kim discloses an optical unit that converts light from a light source section into approximately parallel light. Kim discloses at col. 2, lines 55-56 that a lens 6 functions to convert light from a light source section into parallel light. However, Kim's optical unit does not consist of only two mirror, as required by the structure of the optical unit recited in amended independent claim 1. For at least this reason, independent claim 1 is believed to define patentable subject matter.

Applicant respectfully submits that the present invention as claimed is neither taught nor suggested by, and therefore is neither anticipated nor rendered obvious in view of, Kim. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 2, 5, 6, 9, 10, 15 and 17 under 35 U.S.C. 102(b).

# Claim Rejections - 35 U.S.C. § 103

Claims 1, 2, 5-18, and 21 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Kim in view of Ota, U.S. Patent No. 6,485,153 ("Ota"). Applicant respectfully disagrees with the characterization of the claims and prior art in the stated rejection and respectfully traverses this rejection.

Ota fails to cure the above-stated deficiencies of Kim. That is, Ota fails to disclose or suggest an optical unit that converts light having a wavelength between 5 and 20 nm from a light source into approximately parallel light, and consists of first and second mirrors, as required by amended independent claims 1, 18, and 21.

Applicant respectfully submits that the present invention as claimed is neither taught nor suggested by, and therefore is neither anticipated nor rendered obvious in view of, Kim or Ota, alone or in combination. Accordingly, Applicant respectfully requests

reconsideration and withdrawal of the rejection of claims 1, 2, 5-18, and 21 under 35 U.S.C. 103(a).

# **Dependent Claims**

Applicant has not independently addressed the rejections of the dependent claims. Applicant submits that, in view of the amendments to the claims presented herein and, for at least similar reasons as to why the independent claims from which the dependent claims depend are believed allowable as discussed supra, the dependent claims are also allowable. Applicant however, reserves the right to address any individual rejections of the dependent claims should such be necessary or appropriate.

#### **CONCLUSION**

For the above-stated reasons, this application is respectfully asserted to be in condition for allowance. An early and favorable examination on the merits is requested. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

#### **AUTHORIZATION**

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 1232-5269.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is

hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 1232-5269.

Respectfully submitted,

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Dated: January 6, 2006

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